

Incl. 100th issue

Tracing back the history of the Accessible Design Foundation of Japan with Incl. since its first issue.



Introduction

The first issue of "Incl.", a periodical of the Accessible Design Foundation of Japan (hereafter, "ADFJ"), was published on July 25, 1999, and we are very glad that we can publish this 100th issue of "Incl." now in January 2016.

Since "Incl." started in the same year in

which ADFJ was founded, it has effectively followed the path that ADFJ has moved through. We would like to show you the history of ADFJ since its foundation up until now, by referring to the articles that have been provided on the past issues of "Incl."

Background of the establishment

On April 16, 1999, E&C (Enjoyment and Creation) project (hereafter, "E&C"), a civic group which had worked for 8 years previously, was positively dissolved, and the Accessible Design Foundation of Japan (Kyoyohin Foundation) was established as a juridical foundation. E&C consisted of members who had gathered voluntarily, with a self-motivated challenging mission to disseminate products and services usable for everyone of any age, with or without disabilities. In those times when the terms such as "universal design" or "design-for-all" were not yet popular, we named those products and services collectively as "kyoyohin" and "kyoyo-service" (accessibly-designed products and accessibly-designed services). We started

from making definitions of these terms. E&C was the pioneer in conducting "surveys on inconveniences", which now comprise an essential part of ADFJ's activities. As the number of E&C's members was expanding, from 16 at its foundation to 400, expectation from the society was also getting greater. Although it was a delightful movement, it was getting harder to respond to all of those expectations without neglecting its members' principal occupations since all members were wearing two hats. Considering this situation, it was decided to turn the organization into the one that can respond to the needs from the society, by wearing "only one hat". This is how the Accessible Design Foundation of Japan was established as a judicial foundation.

Surveys

Surveys on inconveniences

For turning general products and services into accessibly-designed products and services, it is most important to know what kind of inconveniences persons with disabilities and older persons are experiencing in their daily lives. So, we started from surveys targeting "older persons" and "persons with intellectual disabilities", which had never been conducted by E&C. Before that, this kind of survey had been conducted first as a "qualitative survey" with a small number of people and then evolved into a "quantitative survey" with a large number of people. However, for both surveys, we repeated "qualitative surveys" rather than "quantitative surveys". This was because differences among individuals were larger in these surveys, compared to those with "visual impairment", "hearing impairment" and "physical disabilities", which had been conducted previously.

For companies developing and providing products and services, information of inconveniences with each disability is important indeed, but some companies noted, "If we could get to know the information of the inconveniences experienced by people with various disabilities at one time, we would be able to think of and provide products and services for wider range of people." This was a valuable feedback we received through these surveys.

In order to respond to this demand, we sought a solution and came up with "the inconvenience

search system" in 2001. This system made it possible to consolidate the results of surveys on inconveniences that had been conducted per each type of disabilities into one data and enabled the data search by various categories of products and facilities (services).

Furthermore, demands from companies for the surveys on inconveniences extended to individual products. In 2004, we conducted a survey on the mechanism using IC tags to inform persons with visual impairment of what is written on packages by speech. It has evolved into a mechanism to display such information using QR codes as currently used. Additionally, we had conducted a survey aiming at adding accessible design features to induction cookers for three years since 2006. We advanced the survey to a quantitative survey after a qualitative survey, with wider range of object persons such as persons with visual impairment, hearing impairment and physical disabilities, and older persons. As a result, we were finally able to accomplish the guidelines to be applied commonly to various companies.

Furthermore, we have also initiated collaborations with institutions and sectors which we had not targeted before, such as surveys on medical equipment that started in 2014 and labor of older persons that started in 2015.

Surveys on "what was good"

In comparison to 20-odd years ago when we started surveys on inconvenience, these surveys, especially the reports we have published, are gaining higher visibility in our society. It can be evidenced by the fact that the number of the reports for these investigations downloaded from ADFJ's website is increasing.

Let me give you an abstract example. Suppose there was a "hole" on the road. In the past, even if we reported "The hole on the road is causing inconvenience for some people." it took a long time until it was fixed. But nowadays, once a "hole" is found, it is more usual that the "hole" is quickly repaired and the road is leveled out. However, in order to make the road even easier to walk on, we believe "surveys on inconvenience" alone is not sufficient. This is why we started the "surveys on 'what was good' " (Figure 2) in 2013.



[Figure 2: "Investigations on 'what was good' "]

Details of the questionnaire and methodologies for tallying and analyzing the result of the surveys on 'what was good' had been worked out by many people including representatives from various disability organizations, "Detective

Team on Everything by Older Persons", in which roughly 900 older persons are registered, and people from respective industrial organizations subject to each survey. The results have been summarized as official survey reports and disclosed on ADFJ's website.

Some of the people from organizations for persons with disabilities and older persons, who had been accustomed to pointing out inconveniences, expressed their impressions as follows: "When we started it, we felt a little awkward because we were not accustomed to complimenting on something. But once we have got used to it, it feels quite pleasing."

The theme of the first year was "travel", and we enjoyed participations from Japan Hotel Association, Japan Ryokan and Hotel Association, and the Foundation for Promoting Personal Mobility and Ecological Transportation. The theme of the second year was "convenience stores". We prepared a graphically-illustrated material in addition to a report, representing "what was convenient" in each situation at a convenience store, and provided it on our website, which actually has been viewed by many visitors.

The chairperson of the "surveys on what was good" committee has been assumed by Mr. Mitsunori Torihara, who is also the chairperson of Japanese Paralympic Committee. So, we are hoping that these surveys will contribute to 2020 Tokyo Olympic/Paralympic Games in some way.

In 2014, we presented the results of these "surveys on inconveniences" and "surveys

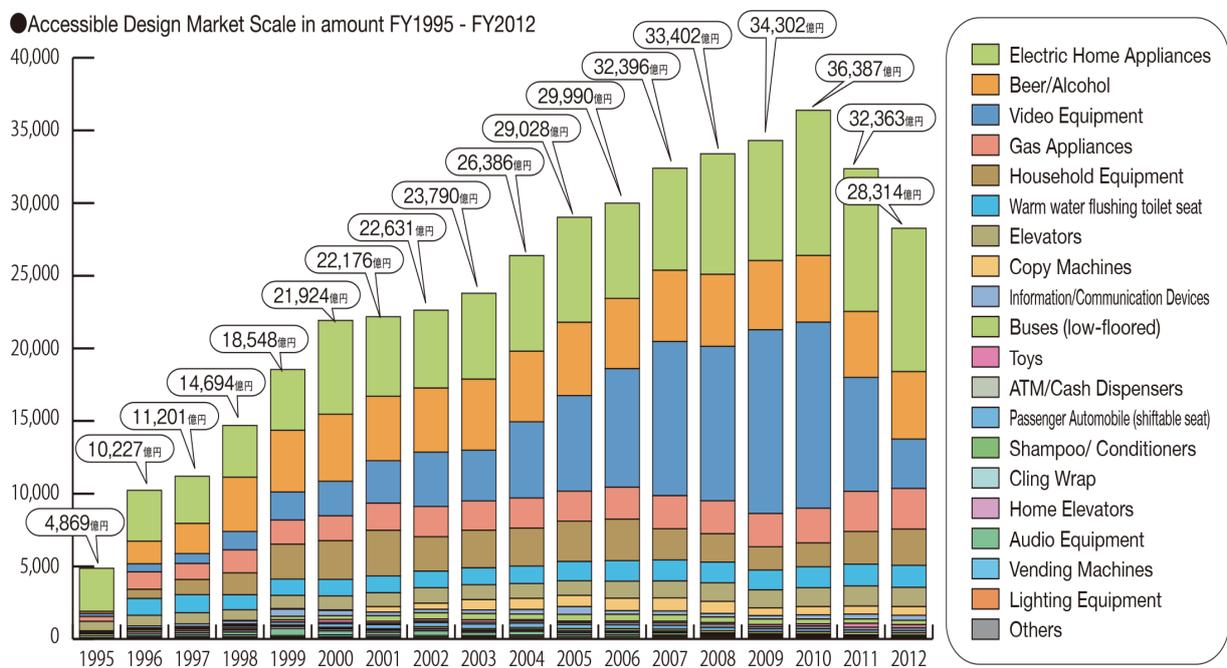
on 'what was good' " to organizations for persons with visual impairment in Indonesia, Myanmar and Vietnam respectively. Then, each organization told us "These surveys would also be useful for us in conveying our needs

to businesses and governmental agencies." So, we have conducted these surveys also in these countries. Preparations are under way to make use of the results in each country.

Surveys on the accessible design market scale

The survey on the accessible design market scale started in 1995, and has been continuously conducted up to now, taken over by ADFJ since it was founded. The market scale reached 2 trillion Japanese yen in 2000, and surpassed 3 trillion Japanese yen in 2007.

This chart representing the market scale (Table 1) has motivated businesses to actively pursue accessible design, and the achievements have been evident. This fact makes us feel that sometimes just one bar chart speaks louder than hundreds of words.



[Table 1: Survey on the accessible design market scale]

For us, this chart seems just like an end-of-the-semester report card for ADFJ.

Development of rules

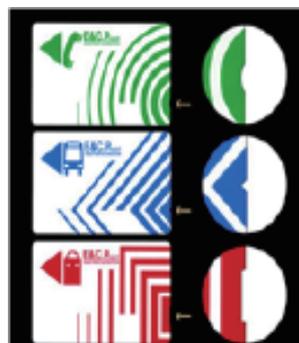
The next activity of ADFJ is "development of rules". There are two types of rules for which ADFJ is involved in development: one is standards for products such as national standards (Japanese Industrial Standards = JIS) and international standards, and the other

is guidelines for services. Although they are different in terms of objects and forms, both types of rules substantially share common goals to resolve inconveniences identified by the "surveys on inconveniences".

Products

The first ever JIS issued in relation to accessible design was the standard regarding "prepaid cards".

There was a problem identified through the surveys with persons with visual impairment, which was "It is hard to distinguish by hand what kind of prepaid cards it is, and which side is front or back." Members of E&C developed many prototypes to cope with this problem, and repeated monitoring and verifications. As a result, they came up with the idea of adding cutouts on the cards to distinguish them, whose shapes are differentiated according to the type of cards as shown in Figure 4.



[Figure 4: Identification of prepaid cards]

When we were considering how to explain this idea to relevant institutions and have it implemented, we got an advice from Mr. Yoshikazu Goto, who was an official of the Ministry of International Trade and industry and a member of E&C as well, "If verification has been done, with logical evidences, it can be standardized as JIS by taking appropriate steps.". Then we decided to take these steps, and we realized the publication of JIS for prepaid cards in 1998. After that, several JISs were published, including "packaging and receptacles" and "tactile dots and bars on consumer products". One day at this time, Mr. Masahiro Miyazaki, then a manager for Japanese Industrial Standards Committee (JISC), gave us one suggestion: "Why don't we globalize these national standards regarding accessible design?" In response to this, we soon formed a special team in ADFJ and started preparation. That was an enormous plan: development of guidelines for standards developers in developing standards, as an official document of the International Organization for Standardization (ISO). In 1998, Japan's proposal was approved unanimously at ISO's international conference, with Japan assuming the positions of the chair and secretariat.



[Figure 5: ISO/IEC Guide 71]

As a result of these efforts, ISO/IEC Guide 71 (Guidelines for standards developers to address the needs of older persons and persons with disabilities) was published in 2001 as presented as Figure 5. In Guide 71, the word "accessible design" was used as the English translation of the Japanese term "Kyoyohin", the word we had invented for calling the products usable by persons of any age with our without disabilities.

During the period when this guide was published, we often heard people around us saying that Europe and U.S. were leading in the area of welfare and barrier-free, and Japan was lagging behind. Since Japan had entered into super aging society earlier than any other countries, we had no countries to model upon. Therefore, we needed the documentation of the rules that everyone can refer to and follow, by listening to many people and coordinating opinions of various stakeholders. Furthermore, ADFJ made it its next goal to share the standards related to accessible design that had been published in Japan, with other countries through ISO. As of January 2016, there are 37 Japanese Industrial Standards related to accessible design in Japan (Table 2). With an aim of sharing these standards with many countries, we have established 3 groups in ISO that develop standards regarding accessible design, for each of which Japan has been assuming the responsibilities of the chair and secretariat.

Sub-committees/working groups named "accessible design" were founded under some technical committees of ISO, namely TC159 (Ergonomics) in 2005, TC122 (Packaging) in 2008 and TC173 (Assistive products for persons with disability) in 2010. Some international

standards proposed by Japan have already been published, including "Braille" and "Accessible meeting". And currently, we are trying to make a framework whereby anyone can recognize the target user groups of each product developed in reference to those standards.

【Basic Standards】

1	JIS Z 8071	Guidelines for standards developers to address the needs of older persons and persons with disabilities
---	------------	---

【Visual Considerations】

2	JIS S 0031	Ergonomics - Accessible design - Specification of age-related luminance contrast for coloured light
3	JIS S 0032	Visual signs and displays -- Estimation of minimum legible size for a Japanese single character
4	JIS S 0033	Visual signs and displays -- A method for colour combinations based on categories of fundamental colours as a function of age

【Auditory considerations】

5	JIS S 0013	Auditory signals on consumer products
6	JIS S 0014	Ergonomics - Accessible design - Sound pressure levels of auditory signals for consumer products

【Tactile considerations】

7	JIS S 0011	Accessible design - Tactile dots and bars on consumer products
8	JIS S 0052	Tactile information - Basic design methods for tactile patterns
9	JIS T 0921	Using methods of braille sign-Public facility
10	JIS T 0922	Methods of displaying tactile guide maps
11	JIS T 0923	Methods of displaying braille sign - Consumer products
12	JIS T 9253	Performance and test method of ultraviolet ray hardening resinous braille
13	JIS X 6302-9	Identification cards-Recording technique-Part 9: Tactile identifier mark
14	JIS X 6310	Prepaid cards- General specifications

【Packaging/receptacles】

15	JIS S 0021	Packaging - Accessible design - General requirements
16	JIS S 0022	Packaging and receptacles - Test methods for opening
17	JIS S 0022-3	Packaging and receptacles - Tactile indication for identification
18	JISS0022-4	Packaging and receptacles - Evaluation method by user
19	JIS S 0025	Packaging and receptacles - Tactile warnings of danger - Requirements

【Consumer Products】

20	JIS S 0021	Usability of consumer products
21	JIS S 0023	Guidelines for designing of clothes in consideration of the elderly people
22	JIS S 0023-2	Guidelines for designing of clothes in consideration of the older people-How to use of button

【Facilities/Equipment】

23	JIS S 0024	Housing equipment
24	JIS S 0026	Shape, colour, and arrangement of toilet operation equipment and appliance in public rest room
25	JIS S0041	Operability of vending machine
26	JIS T 0901	Information presentation using electronic guiding and wayfinding system
27	JIS T 0902	Auditory guides in public space for mobility assist
28	JIS T 9251	Shapes, dimensions and patterns of raised parts of tactile walking surface indicators for persons who are blind or with seeing impairment

【Information and Communications】

29	JIS X 8341-1	Information and communications equipment, software and services -- Part 1: Common Guidelines
30	JIS X 8341-2	Information and communications equipment, software and services -- Part 2: Personal computer hardware
31	JIS X 8341-3	Information and communications equipment, software and services -- Part 3: Web content
32	JIS X 8341-4	Information and communications equipment, software and services -- Part 4: Telecommunications equipment
33	JIS X 8341-5	Information and communications equipment, software and services -- Part 5: Office equipment
34	JIS X 8341-6	Information and communications equipment, software and services -- Part 6: Guidance on software accessibility
35	JIS X 8341-7	Information and communications equipment, software and services -- Part 7: Accessibility settings

【Communications】

36	JIS S 0042	Considerations and apparatuses for accessible meetings
37	JIS T 0103	Design principles of pictorial symbols for communication support

[Table 2: Standards related to accessible design (37 standards)]

Services

Products and services are complementary to each other.

In 1999, immediately after ADFJ was incorporated as a foundation, we received a pleasant request from the Postal Service Agency of Japan. The request was to make a manual for the employees working in post offices throughout Japan, as a booklet and video to learn how to attend to customers with disabilities coming to post offices. We were so delighted with this request, since we had gathered many opinions about various services, not only products, through the surveys on inconveniences. Here are some examples of typical inconveniences related to services: when persons with visual impairment are told, "It's here" or "There it is", they cannot understand where "here" and "there" refers to. Also, for persons with hearing impairment who read speakers' lips to understand what is spoken, it is hard to understand what is being spoken when the speaker is wearing a medical mask.

If you knew what is inconvenient, there could be a thousand ways to solve a problem, but in many cases you cannot communicate appropriately due to the ignorance of what is inconvenient. We created a manual intended to provide such knowledge about what is inconvenient, and it was distributed to post offices throughout Japan (Figure 6).



[Figure 6: Manual for post offices]

Being triggered by this business, in 2004, ADFJ was requested by the Cabinet Office of Japan to develop "The manual for considerations at public service windows" (Figure 7). For "Exposition of Global Harmony 2005 Aichi, Japan", we also developed a barrier-free manual for Japanese Government's Pavilions and assisted training courses as well. Above all, we are so glad that this practice has been taken over in the Expos that took place later in Spain, China, Korea and Italy.



[Figure 7: Manual for the Cabinet Office]

In 2011, ADFJ developed "Exhibition Guide" (Figure 8) in collaboration with industrial groups related to exhibitions. In accordance with this guide, we have been offering assistance in developing manuals for aquariums and music halls etc. and providing training courses.



[Figure 8: Exhibition Guide]

In addition, we are currently participating and cooperating in the development of accessibility guide for 2020 Tokyo Olympic and Paralympic Games being prepared by the Organizing Committee, taking advantage of our experiences in the past.

The final activity of ADFJ that we will introduce is "dissemination". The dissemination activities include exhibitions, events, symposiums, publications, images and various conferences.

Dissemination

Exhibitions

In 1999, the year ADFJ was incorporated as a foundation, we organized "Exhibition: the Future opened up by Kyoyohin (Accessible Design)" at Sony Building in Ginza, Tokyo. Wrapping up the activities in the past, we presented certificates of commendation to 10 industry groups who had contributed to the dissemination of accessible design, at this same venue where E&C project had organized exhibitions 3 times in 1993, 1995 and 1997 previously.

From the following year, we continued exhibitions of accessible design, shifting the venue to International Home Care and Rehabilitation Exhibition (HCR) at Tokyo Big Sight. Furthermore, we also participated in international exhibitions, starting from 2001 in Japan-Korea festival. In 2003 we participated in REHACARE in Germany, the world's largest exhibition of assistive devices, to exhibit accessibly-designed products, and we

successfully gained lots of positive responses.

We also had opportunities to participate in exhibitions organized by disability organizations from planning phases. In 2007, we started to participate in "Sight World", an exhibition of devices for persons with visual impairment, and have been able to let many persons with visual impairment know about accessible design. At the Information Accessibility Forum hosted by Japanese Federation of the Deaf, we provided "communication support boards", which would be standardized later as JIS and an International Standard.

From 2009, we started to cooperate in the planning and operation of "Age-Friendly Goods Corner" in HCR, according to a request from its organizer.

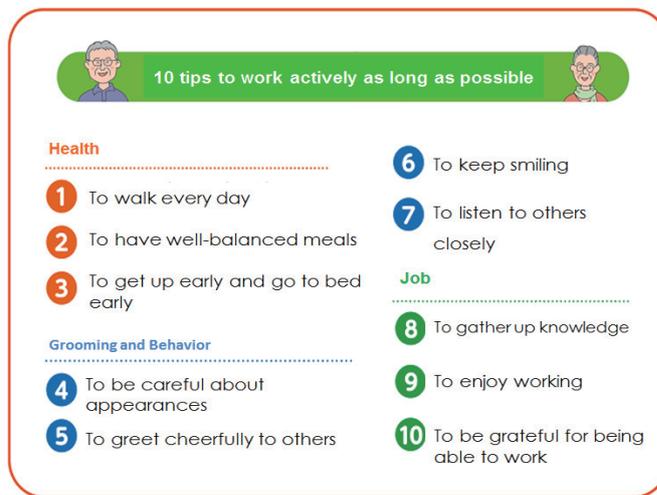
In the third year from the beginning, as we changed the title of the corner to "Exhibition of Goods Usable by One Hand", it became a

much more popular corner, with visitors coming endlessly all day long.

An exhibition under the same title was also conducted in Taipei in June 2015, with similar positive responses.

Following that, we laid much weight on titles when we participated in exhibitions at HCR, such as "Eye-opening Exhibition" and "10 Tips

to Enjoy Travel Exhibition". In 2015, under the title of "10 Tips to Work Actively As Long As Possible", we created 10 itemized articles with an assistance from "Detective Team on Everything by Older Persons" managed by the company called Koreisha.co., which also enjoyed a lot of positive responses (Figure 9).



[Figure 9: 10 Tips to Work Actively As Long As Possible]

Symposiums

In 2000, industry groups including those for home appliances, transportation, assistive products, gas and oil appliances, household equipment, packaging, vending machines and toiletries have gathered to organize a symposium in order to share information and publicize the activities related to accessible design in each industry widely to the society as well. Since the publication of ISO/IEC Guide 71 was expected in the following year, the theme of the first year was focused on this topic, which drew significant interests from many companies.

We have continued to hold this symposium every year, with a different subject for each (Figure 10).



[Figure 10: AD Symposium]

Courses

Lectures and educational materials for children

We believe that it is important to educate children about accessible design and let them think about it with hearts of children. Therefore, we have been providing lectures at many elementary schools and junior high schools every year. For this purpose, we have prepared "What do you know about accessible design products?" booklet (Figure 11) and "Accessible Design Educational Material Kit" (Figure 12).



[Figure 11: "What do you know about accessible design products?"]

[Figure 12: Accessible Design Educational Material Kit]

Summer Vacation Science Square

Every year since 2008, we have been regularly conducting an event to provide children with the knowledge of accessible design at "Summer Vacation Science Square" that is held in the National Museum of Nature and Science in Ueno, Tokyo (Figure 13).



[Figure 13: Summer Vacation Science Square]

Local events

Since 2013, we have participated in some events in Chiyoda Ward where ADFJ's office is located, such as an exhibition in the Week of Persons with Disabilities and Welfare Festival (Figure 14), and an event in neighboring Bunkyo Ward (Figure 15) as well.



[Fig14: Chiyoda Ward Welfare Festival]

[Fig15: Bunkyo Volunteer Civil Activities Festival]

General accessible design information magazine "Incl."
The 100th issue English edition (partially extracted
from the original)
Published on January 25, 2016

Edited and published by the Accessible Design
Foundation of Japan
OGA Building 2F, 2-5-4, Sarugaku-cho, Chiyoda-ku,
Tokyo 101-0064, Japan
TEL: 03-5280-0020 / FAX: 03-5280-2373
E-mail : jimuyoku@kyoyohin.org
Website: <http://kyoyohin.org>

We will authorize the reproduction of all or a part of
the content of this magazine in accessible formats such
as Braille, audio or enlarged photocopy for persons
with visual impairment or for persons who cannot
read this magazine in the original format. In case you
would like to do any of the above, please contact the
Accessible Design Foundation of Japan.

Unauthorized copying or reproduction of this
magazine for purposes other than the aforementioned
shall constitute an infringement of the rights of the
copyright owners.